

program terminates at block 733.

We Claim:

1. An apparatus for minimizing interruption of communications on a first communications link between a central office and a customer premises telephonic device when local loop generation equipment is coupled to the first communications link, the apparatus comprising:

(a) a second communications link between the local loop generation equipment and the central office;

(b) a processing mechanism at the central office coupled to the second communications link and adapted to determine under what circumstances the customer premises telephonic device will be notified over the first communications link in response to the activation of local loop generation equipment.

2. An apparatus for intelligently controlling any interruption of communications over a first telephone line between a central office and one or more customer premises devices caused by the activation of local loop generation equipment on the first telephone line, the apparatus comprising:

(a) a second telephone line between the local loop generation equipment and the central office;

(b) a processing mechanism at the central office coupled to the second telephone

line and adapted to determine under what circumstances the customer premises telephonic device will be notified over the first telephone line in response to the activation of local loop generation equipment.

3. An apparatus for allowing a premises occupant to receive an incoming telephone call placed from a doorbell answering system on a first telephone line while the first telephone line is already in communication with a central office and the premises occupant is engaged in a telephone call on the first telephone line, the apparatus comprising:

(a) a second telephone line between the doorbell answering system and the central office;

(b) a processing mechanism at the central office coupled to the second telephone line and adapted to determine under what circumstances the customer premises occupant will be notified over the first telephone line in response to the activation of the doorbell answering system.

4. The apparatus of claim 3 wherein the processing mechanism further comprises a mechanism for providing the customer premises occupant with a door bell call waiting feature such that the central office will send call waiting tones over the first telephone line when a visitor activates the doorbell answering system and the customer premises occupant is already engaged in a telephone call on the first telephone line.

5. The apparatus of claim 3 wherein the processing mechanism further comprises a mechanism for providing the customer premises occupant with a cancel door bell call waiting feature such that the central office will not send call waiting tones over the first telephone line when a visitor activates the doorbell answering system and the customer premises occupant is already engaged in a telephone call on the first telephone line.

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6. The apparatus of claim 3 wherein the processing mechanism further comprises a mechanism for providing the customer premises occupant with a door bell call waiting feature such that the central office will send call waiting tones over the first telephone line only when a visitor activates the doorbell answering system and the customer premises occupant is already engaged in a telephone call on the first telephone line.
7. The apparatus of claim 1 wherein the second communications link is provided in the form of a telephone line which is equipped to place outgoing local calls, but not equipped to receive incoming calls, and not equipped to place long-distance calls.
8. The apparatus of claim 2 wherein the second telephone line is equipped to place outgoing local calls, but not equipped to receive incoming calls, and not equipped to place long-distance calls.
9. The apparatus of claim 3 wherein the second telephone line is equipped to place outgoing local calls, but not equipped to receive incoming calls, and not equipped to place long-distance calls.
10. The apparatus of claim 1 wherein the local loop generation equipment is a doorbell answering system.
11. The apparatus of claim 2 wherein the local loop generation equipment is a doorbell answering system.
12. The apparatus of claim 1 wherein the central office utilizes advanced intelligent network (AIN) protocols adapted to permit a premises occupant to receive doorbell answering system telephone calls on the first communications link while already engaged in another telephone call on the first communications link.

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13. The apparatus of claim 2 wherein the central office utilizes advanced intelligent network (AIN) protocols adapted to permit a premises occupant to receive doorbell answering system telephone calls on the first telephone line while already engaged in another telephone call on the first telephone line.
14. The apparatus of claim 12 wherein the AIN capabilities are adapted to provide a premises occupant with a cancel door bell call waiting feature such that the central office will not send call waiting tones on the first communications link when a visitor activates the doorbell answering system and a call is already in progress.
15. The apparatus of claim 13 wherein the AIN capabilities are adapted to provide a premises occupant with a cancel door bell call waiting feature such that call waiting tones will not be sent on the first telephone line when a visitor activates the doorbell answering system and a call is already in progress.
16. The apparatus of claim 12 wherein the AIN capabilities are used to provide a premises occupant with a call waiting feature such that only calls from the doorbell answering system will cause call waiting tones to be sent on the first communications link.
17. The apparatus of claim 13 wherein the AIN capabilities are used to provide a premises occupant with a call waiting feature such that only calls from the doorbell answering system will cause call waiting tones to be sent on the first telephone line.
18. A method for minimizing interruption of communications on a first communications link between a central office and a customer premises telephonic device

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when local loop generation equipment is coupled to the first communications link, the method comprising the steps of:

- (a) providing a second communications link between the local loop generation equipment and the central office;
- (b) utilizing a processing mechanism at the central office, coupled to the second communications link, for determining under what circumstances the customer premises telephonic device will be notified over the first communications link in response to the activation of local loop generation equipment.

19. A method for intelligently controlling any interruption of communications over a first telephone line between a central office and one or more customer premises devices caused by the activation of local loop generation equipment on the first telephone line, the method comprising the steps of:

- (a) providing a second telephone line between the local loop generation equipment and the central office;
- (b) utilizing a processing mechanism at the central office, coupled to the second telephone line, for determining under what circumstances the customer premises telephonic device will be notified over the first telephone line in response to the activation of local loop generation equipment.

20. A method for allowing a premises occupant to receive an incoming telephone call placed from a doorbell answering system on a first telephone line while the first telephone line is already in communication with a central office and the premises occupant is engaged in a telephone call on the first telephone line, the method comprising the steps of:

- (a) providing a second telephone line between the doorbell answering system and the central office;
- (b) providing a processing mechanism at the central office, coupled to the second

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telephone line, for determining under what circumstances the customer premises occupant will be notified over the first telephone line in response to the activation of the doorbell answering system.

21. A method for controlling visitor access to an occupant premises, the method comprising the steps of:

- a) using a phone dialing mechanism to place a telephone call;
- b) the telephone call causing a notification to be provided to a telephonic device at the occupant premises, the notification signifying that a visitor is present;
- c) an automated voice enunciation mechanism providing an enunciated voice message to the visitor indicative of progress of the telephone call and corresponding to at least one of busy signal, dial tone, and an answered call;
- d) when the telephone call is answered, providing a communications path between the visitor and the occupant premises so as to enable the visitor to determine whether or not to grant access to the visitor; and
- e) activating an access control mechanism at the occupant premises if access is to be provided to the visitor.

22. The method of claim 21 wherein the communications path is provided using a slow scan video link.

23. The method of claim 22 wherein the slow scan video link is implemented using modems.

24. A system for controlling visitor access to an occupant premises, the system comprising:

- a) a phone dialing mechanism adapted to place a telephone call;
- b) a notification mechanism responsive to the phone dialing mechanism to cause a notification to be provided to a telephonic device at the occupant premises, the notification signifying that a visitor is present;
- c) an automated voice enunciation mechanism adapted to provide an enunciated

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voice message to the visitor indicative of progress of the telephone call and corresponding to at least one of busy signal, dial tone, and an answered call;

d) a communications path establishment mechanism operative, when the telephone call is answered, so as to provide a communications path between the visitor and the occupant premises, thereby enabling the visitor to determine whether or not to grant access to the visitor; and

e) an access control mechanism at the occupant premises adapted to be activated if access is to be provided to the visitor.

25. The system of claim 24 wherein the communications path is provided using a slow scan video link.

26. The system of claim 25 wherein the slow scan video link is implemented using modems.

27. A system for providing selective access to an occupant premises, including:

(a) a first translation mechanism for translating telephone signalling tones into voice;

(b) a second translation mechanism for detecting a call status and translating the call status into one or more enunciated voice prompts using stored digital voice representations;

(c) an association mechanism for associating an occupant premises identifier with an occupant premises telephone number and a door answering device telephone number, so as to enable signalling of an occupant premises by placing a telephone call over the public switched telephone network to the door answering device telephone number.